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The Need to Diversify the Ranks of Teachers of Mathematics

Frederick L. Uy

California State University, Los Angeles

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Frederick L. Uy
Division of Curriculum and Instruction
California State University, Los Angeles
Los Angeles, CA 90032
(323) 343 5468
fuy@calstatela.edu

ABSTRACT
This paper intends to give rationales for the need to diversify the ranks of teachers of mathematics. It also suggests ideas that we can take to alleviate the situation that we currently are confronting.

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"It is essential to have a workforce of strong mathematics teachers that reflect the demographic characteristics of the student population." This claim is taken from NCTM's position statement on *The Mathematics Education of Underrepresented Groups*. My personal feelings dictate that a reader's immediate idea of characteristic is purely based on ethnicity. However, the characteristics (I prefer referring to them as *gaps*) of our classrooms encompass many other points that, to name a few, include gender, culture, language, socioeconomic status, physical and learning abilities, etc. No one can argue against the fact that our classrooms today are getting more and more diversified. Keeping up with these changes is indeed not only challenging but also important. Allow me to discuss some of these gaps.

One of the known gaps we have right now is gender. According to the report of the National Education Association (NEA) in 1997 entitled "Status of the American Public School Teachers, 1995-96," there were about 2,164,000 teachers in the USA. Of these teachers, females comprised 74.4% as compared to 25.6% of male teachers! Aside from the incongruity in the ratio of female to male, it also is necessary to look where teachers are primarily concentrated. Most of the female teachers are in elementary schools, and most of the male teachers are in mathematics and science disciplines and most likely in high schools. The way I look at it, this is a troubling scenario since our students now have fewer and fewer role models to look up to. Let's face it, some issues and incidents that students confront are better confided to someone of the same gender.

Next comes the racial makeup of our teachers and students. If one asks what percent of K-12 students are minorities, would you know it to be nearly 30%? Focusing on the teachers, do we know it to be about 13%? Or that over 40% of schools in the US do not have a faculty member who is a person of color? Quite eye-openers, aren't they? We can no longer deny the fact that our students are getting more and more diverse, but our teachers do not match the rate. Is there really a reason for concern? Frankly, yes, there is. A report of The Mathematical Association of America (MAA) entitled *Attracting Minorities into Teaching Mathematics Executive Summary* provided one good reason by stating that "a diverse teaching force shows all students that minorities can do mathematics and that diversity is a positive component of American society." Another reason is that we need to show these students that they too can achieve and that mathematics is intrinsic to us. Our students must be set to succeed in their undertakings. We, as teachers, should lead our students to the right avenues.

Reading the NCTM position statement again, the word strong is an area of concern. I do believe that when we say "strong" we mean "qualified." With what we currently have, our teaching force is not "strong." According to the *Digest of Education Statistics 1997*, of a total of 1,158,788 Bachelor's degrees awarded in 1994-95, 9% were in Education and 1.2% were in Mathematics! Of the 397,052 Master's degrees, 25% went to Education and 1% went to Mathematics. Furthermore, more than one-fourth of newly hired teachers do not have the necessary license. To complicate the situation, 12% have no license at all, and another 15% have temporary licenses. Add to that the fact that 22% of our new teachers abandon the profession within the first three years. Do we even dare to look into how many teachers leave after ten years?

What can we do? We need to make these situations known to the public. We no longer can be silent and wait for things to happen; otherwise things will just bypass us. We need to speak to hiring bodies about the necessity to diversify the ranks of mathematics teachers. We, as a world, are getting closer each time, and each day that passes brings this reality more and more real. Many actions still are needed to achieve equity and to have an effective teaching work force. More recruitment is needed, and the profession has to be made more lucrative and more inviting. We need to write to our lawmakers to demand that this predicament be looked at and to lobby for the improvement of teaching conditions. Actions need to be taken, and they have to be taken now! Time, as we all know it, is fast running out. It will be sad for us to realize that because of negligence, this problem will be beyond rectifying.

What I have presented here are current realities in our classrooms. If we are to uphold GOALS 2000 in making sure that there *will be a talented, dedicated, and well-prepared teacher in every classroom*, we have to consider and make this a priority! Let us be reminded that in the next ten years we will need at least two million new teachers. If things remain status quo, the question is no longer, "What kind of future will we have?" but simply, "What future?"

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